

Serial No.: 10/806,032

Filing Date: 3/22/2004

Attorney Docket No. 100.760US03

Title: ARCHITECTURE FOR SIGNAL DISTRIBUTION IN WIRELESS DATA NETWORK

Amendment to the Drawings

The attached sheets of drawings include changes to Figs. 5 & 6. These sheets, which include Figs. 5 & 6, replaces the original sheets including Figs. 5 & 6.

(a) FIG. 5 has been amended to delete reference numerals 18 from the boxes labeled “NETWORK HELP” and “HECU SERVER” and those boxes have been enclosed in a dotted-line box labeled “LAN HUT 18”.

(b) FIG. 6 has been amended to delete the label “WLAN Bridge” ;

Attachments: Replacement sheets

REMARKS

The Office Action mailed on March 24, 2008 has been reviewed. Claims 1-13 are pending in this application.

Objections to Drawings

The drawings were rejected under 37 C.F.R. 1.83(a). The Office Action states the following in connection with this objection:

The drawings must show every feature of the invention specified in the claims. Therefore, the apparatus (Claims) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Fig 1 doesn't show the location of the apparatus of Claim 1. Fig 2 and 3 shows a Coupler, Cable Access Point, Power Insert, Head End Access Point, and LAN Hub, but no apparatus as described in the Claims. Fig 4 shows a Cable Access Point, Head End Access Point, and LAN Hub, but no apparatus as described in the Claims. Fig 5 shows a Head End/Central Office1 Service Node, Standard Plant/Cell Site, and Subscriber Site, but no apparatus as describe in the claims. Fig 6 and 7 show no apparatus as described in the claims. Fig 2, 3, and 4 show an item (Prime Power), doesn't show where the source. Also the specification doesn't explain the source of the Prime Power. Fig 6 states WLAN Bridge, so is Fig 6 a WLAN Bridge or the Head End Access Point (16).

Page 2 of Office Action.

Applicant respectfully traverses this objection. One embodiment of the “apparatus” recited in claim 1 is shown in, for example, FIGS. 1-6, as CAP 14-1. It is respectfully submitted that there is no requirement in 37 C.F.R. 1.83(a) that the exact words used in the claims be used in drawings; the only requirement is that every feature of the claimed invention must be shown in the drawings and that is case with the apparatus of claim 1. For example, FIG. 3 shows one embodiment of an apparatus of claim 1 that includes “an access point” (e.g., CAP 14-2) that includes a wireless local area network (WLAN) access point” (e.g., 801-11 access point 34-2), and “an access point remote converter” (e.g., cable modem 37-1).

With respect to the statements that “Fig 2, 3, and 4 show an item (Prime Power), doesn't show where the source. Also the specification doesn't explain the source of the Prime Power.”, it is respectfully submitted that the Office Action has failed to explain how these statements are relevant to this objection to the drawings. More specifically, the Office Action has failed to explain how the Prime Power is a feature recited in the claims.

With respect to the statement that “Fig 6 states WLAN Bridge, so is Fig 6 a WLAN Bridge or the Head End Access Point (16).”, Applicant has amended FIG. 6 to delete the label “WLAN Bridge” to avoid confusion on this point.

Based on the foregoing, Applicant respectfully requests that this objection be withdrawn.

The drawings were objected to as failing to comply with 37 CFR 1.84(p)(4) “because reference character “18” has been used to designate LAN HUT (Fig 1), Network Help (Fig 5), and HECU Server (Fig 5).”

FIG. 5 has been amended to delete reference numerals 18 from the boxes previously labeled “NETWORK HELP” and “HECU SERVER” and those boxes have been enclosed in a dotted-line box labeled “LAN HUT 18”.

Rejections Under 35 U.S.C. § 112

Claims 1-7 and 9-13 were rejected under 35 USC § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to the statement in the Office Action that “A) It is unclear in Claim 1 as to the apparatus, does the apparatus couple an internetworking device and remotely located access point or does the apparatus comprised with an access point coupled to the transport network for communicating with an internetworking device.”, Applicant has amended claim 1 to address this issue.

The Office Action stated that “*With regards to Claim 2, wherein: the transport network is a twisted pair telephone cabling and the access point remote converter*”

converts the local area network signals to a Digital Subscriber Line (xDSL) format. A) It is unclear as to where power is provided to the transport network, so that the transport network can provide a power to power at least some components of the access point in Claim 1. B) It is unclear what converts the local area network signal to the Digital Subscriber Line (xDSL) format. As stated in claim both the transport network and the access point remote converter are needed to convert the local area network signal to a (xDSL)."

With respect to the statement that *"It is unclear as to where power is provided to the transport network, so that the transport network can provide a power to power at least some components of the access point in Claim 1"*, it is respectfully submitted that claims 1 and 2 do not include any limitations as to where the power is provided to the transport network from. It is respectfully submitted that the claim is otherwise clear in this regard. A claim's breadth does not render it indefinite. See, e.g., MPEP Section 2173.04.

With respect to the statement that *"It is unclear what converts the local area network signal to the Digital Subscriber Line (xDSL) format. As stated in claim both the transport network and the access point remote converter are needed to convert the local area network signal to a (xDSL)."*, Applicant respectfully points out that claim 2 clearly states "the access point remote converter converts the local area network signals to a Digital Subscriber Line (xDSL) format" and this is in no way unclear.

It is respectfully submitted that the amendments to claims 1 and 3 address the objections to claim 3 set forth in the Office Action.

It is respectfully submitted that the amendments to claim 1 address the objection to claim 4 set forth in the Office Action.

It is respectfully submitted that the amendments to claim 5 address the objection to claim 5 set forth in the Office Action.

The Office Action stated that “*With regards to Claim 6 further comprising: a power inserter that inserts the power signal onto the transport network. A) It is unclear the source of power that power inserter will insert.*”

It is respectfully submitted that claim 6 does not included any limitation as to the source of power. It is respectfully submitted that the claim is otherwise clear in this regard. A claim’s breadth does not render it indefinite. See, e.g., MPEP Section 2173.04.

It is respectfully submitted that the amendments to claim 1 address the objection to claim 7 set forth in the Office Action.

The Office Action stated “*With regards to Claim 9, the apparatus of claim 1 further comprising: a head end access point, comprising: a head end remote bridge, connected to receive the transport modulated format signals from the transport network, and to convert such signals to data network compatible signals. A) It is unclear the type of access point that the head end access point is a remotely located access point or the access point that is comprised in the apparatus of Claim 1. B) It is unclear as to head end remote bridge and the internetworking device of Claim 1 as being the same equipment.*”

With respect to the statement that “*A) It is unclear the type of access point that the head end access point is a remotely located access point or the access point that is comprised in the apparatus of Claim 1*”, it is respectfully submitted that the amendments to claim 1 address this objection.

With respect to the statement that “*B) It is unclear as to head end remote bridge and the internetworking device of Claim 1 as being the same equipment*”, Applicant respectfully submits that the Office Action has failed to provide any basis for why it is believed that there is any un-clarity in this regard. The claims clearly indicate that the internetworking device and the head end remote bridge are different and are not the same equipment.

The Office Action stated *“With regards to claim 10, the apparatus of claim 9, wherein the access point and head end access point use a cable modem to perform the transport modulation, conversion, and bridging functions. A) It unclear the location of the cable modem in relation to the apparatus of Claim 1 and the Internetworking device.”*

It is respectfully submitted that the claims do not include any limitation as to the location of the cable modem. It is respectfully submitted that the claim is otherwise clear in this regard. A claim's breadth does not render it indefinite. See, e.g., MPEP Section 2173.04.

The Office Action stated:

“With regards to Claim 11, the apparatus of claim 9 additionally comprising a local area network hub, for receiving the data network compatible signals from the head end remote bridge, and forwarding such signals to the internetworking device.

1) According to the claims the apparatus of Claim 1 is comprised of the following:

- A) Local Area Network Hub (Claim 11)
- B) Head End Access Point (Claim 9)
- C) Head End Remote Bridge (Claim 9)
- D) Signal Coupler (Claim 7)
- E) Power Inserter (Claim 6)
- F) Power Supply (Claim 5 through Claim 4)
- G) Power Supply (Claim 3 through Claim 2)
- H) Access Point Remote Converter (Claim 2)
- I) Access Point (Claim 1)
- J) Wireless Local Area Network Access Point (Claim 1)

It is respectfully submitted that the Office Action has not set forth any basis for why claim 11 is indefinite. The Office Action is simply mistaken in asserting that claim 1 includes all of the features recited in claims 2-7, 9, and 11. Also, claim 11 depends from claim 10, which depends from claim 9, which depends from claim 1. It is not clear

why claims 2-5 are relevant to claim 11. There is nothing improper about having dependent claims that recite different or alternative claim language.

The Office Action made the following statements about claim 12:

- A) It is unclear the termination points of distribution network's transport cabling.
- B) It is unclear the source of the power signal that the transport cabling provides.
- C) It is unclear the type of Access Points sited as the Plurality of Access Points.
- D) It is unclear the location of Access Point Remote Converter for a Microcell.

With respect to the statement that “C) It is unclear the type of Access Points sited as the Plurality of Access Points.”, it is respectfully submitted that the amendments made to claim 12 address this objection.

With respect to the statements that “A) It is unclear the termination points of distribution network's transport cabling.”, “B) It is unclear the source of the power signal that the transport cabling provides” and “D) It is unclear the location of Access Point Remote Converter for a Microcell”, it is respectfully submitted that the claims do not include any limitation as to these items. It is respectfully submitted that the claim is otherwise clear. A claim's breadth does not render it indefinite. See, e.g., MPEP Section 2173.04.

The Office Action made the following states about claim 13:

- A) It is unclear the termination points of distribution network's transport cabling.
- B) It is unclear the source of the power signal that the transport cabling provides.
- C) It is unclear the type of Access Points sited as the Plurality of Access Points.
- D) It is unclear the location of Head End Access Point for a Microcell.

E) It is unclear the location of Access Point Remote Converter for a Microcell.

With respect to the statement that “(C) It is unclear the type of Access Points sited as the Plurality of Access Points.”, it is respectfully submitted that the amendments made to claim 13 address this objection.

With respect to the statements that “(A) It is unclear the termination points of distribution network's transport cabling”, “(B) It is unclear the source of the power signal that the transport cabling provides”, “(D) It is unclear the location of Head End Access Point for a Microcell” and “(E) It is unclear the location of Access Point Remote Converter for a Microcell”, it is respectfully submitted that the claims do not include any limitation as to these items. It is respectfully submitted that the claim is otherwise clear. A claim's breadth does not render it indefinite. See, e.g., MPEP Section 2173.04.

Rejections Under 35 U.S.C. § 103

Claims 1-13 were rejected under 35 USC § 103(a) as being unpatentable over Menon et al. (U.S. H2079H) as applied to claims 1, 12, and 13 above and further in view of Wilson (U.S. Patent Application No. 2001/0036841).

With respect to claim 1, the Office Action conceded that “Menon fails to teach the transport network further providing a power signal to power at least some components of the access point.” The Office Action then took the position that “Where Wilson does teach a wireless modem that includes a power inserter (Claim 8) circuit to provide electrical power to a transverter via coaxial cable (Paragraph 0016). It would have been obvious to one ordinary skill in the art at the time the applicant's invention was made to install one of Wilson's wireless modem in an area where Menon's access points had no power source.”

It is respectfully submitted that the proposed combination of Wilson and Menon fails to teach or suggest “an access point coupled to the transport network for

communicating with an internetworking device, the transport network further providing a power signal to power at least some components of the access point” as recited in claim 1 of the present application. Wilson relates to the use of a wireless transport link between a subscriber site and the head end of a cable plant. *See, e.g.*, Wilson, paragraph [0005], last sentence. The wireless modem and the transverter of Wilson are located at the subscriber site and are used to implement this wireless transport link. The wireless modem is not powered by the transport network and, instead, requires a local power source. Wilson is directed to only needing one local power source instead of two local power sources. Compare, e.g., FIG. 1 vs. FIG. 3 of Wilson. This is done by using the local power source that powers the wireless modem to also power the transverter.

Therefore, not only does Wilson not teach “an access point coupled to the transport network for communicating with an internetworking device, the transport network further providing a power signal to power at least some components of the access point” as recited in claim 1 of the present application but Wilson actually teaches away from this feature in that Wilson teaches the use of local power from the subscriber site (not power from the transport network) to power the remote equipment.

Claims 2-11 all depend from claim 1. Therefore, at least the arguments set forth above apply to these dependent claims as well. Since Applicant believes these dependent claims are allowable for the reasons given above with respect to claim 1, specific arguments with respect to these dependent claims have not been provided in this response. Applicant, however, reserves the right to submit further arguments directed to these claims if a further response is required.

With respect to claim 12, the Office Action conceded that “Monen doesn't disclose the available transport cabling further providing a power signal to power at least some portions of the access point.” The Office Action then took the position that “Where Wilson does teach a wireless modem that includes a power inserter (Claim 8) circuit to provide electrical power to a transverter via coaxial cable (Paragraph 0016). It would have been obvious to one of ordinary skill in the art at the time the applicant's invention

was made to install one of Wilson's wireless modem in an area where Menon's access points had no power source.”

Applicant respectfully submits that the argument set forth above with respect to claim 1 apply to this claim as well. Since Applicant believes claim 12 is allowable for the reasons given above with respect to claim 1, specific arguments to claim 12 have not been provided in this response. Applicant, however, reserves the right to submit further arguments directed to claim 12 if a further response is required.

With respect to claim 13, the Office Action conceded that “Menon doesn't disclose the available transport cabling further providing a power signal to power at least some portions of the access point.” The Office Action then took the position that “Where Wilson does teach a wireless modem that includes a power inserter circuit to provide electrical power (Claim 8) to a transverter via coaxial cable (Paragraph 0016). It would have been obvious to one ordinary skill in the art at the time the applicant's invention was made to install one of Wilson's wireless modem in an area where Menon's access points had no power source.”

Applicant respectfully submits that at least the argument set forth above with respect to claim 1 apply to this claim as well. Since Applicant believes claim 13 is allowable for the reasons given above with respect to claim 1, specific arguments to claim 13 have not been provided in this response. Applicant, however, reserves the right to submit further arguments directed to claim 13 if a further response is required.

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CONCLUSION

Applicant respectfully submits that claims **1-13** are in condition for allowance and notification to that effect is earnestly requested. If necessary, please charge any additional fees or credit overpayments to Deposit Account No. 502432.

If the Examiner has any questions or concerns regarding this application, please contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: 2008-06-24

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